

**SANYO**

NO.1281D

**LB1268****3-Channel, High-Current,  
Low-Saturation Driver Array****Features and Functions**

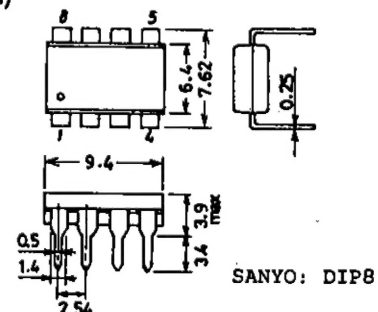
- 3-channel magnet driver
- High current (2.0A max.) and low saturation voltage (1.5V)
- Parallel operation capability (channel 1 + 2)
- On-chip spark killer diodes

**Absolute Maximum Ratings at Ta = 25°C**

|   |                     |   | unit  |
|---|---------------------|---|-------|
| Maximum Supply Voltage                            | V <sub>CC</sub> max | 8.0   | V     |
| Output Supply Voltage                             | V <sub>OUT</sub>    | 10.0  | V     |
| Input Supply Voltage                              | V <sub>IN</sub>     | 12.0  | V     |
| Output Current                                    | I <sub>OUT1</sub>   | ton ≤ 50ms, duty = 20%,<br>solenoid drive stage (ch1,2) | 1.0 A |
|   | I <sub>OUT2</sub>   | ton ≤ 50ms, duty = 5%,<br>motor drive stage (ch3)       | 2.5 A |
| [Spark Killer Diode<br>Forward Current            | I <sub>FSM1</sub>   | t ≤ 5ms, duty = 5%,<br>solenoid drive stage (ch1,2)     | 1.0 A |
|   | I <sub>FSM2</sub>   | t ≤ 5ms, duty = 5%,<br>motor drive stage (ch3)          | 2.5 A |
| V <sub>CC</sub> Instantaneous<br>Flow-Out Current | I <sub>CCP</sub>    | t ≤ 5ms, duty = 5%,                                     | 3.0 A |
| GND Pin Flow-Out Current                          | I <sub>GND</sub>    | t ≤ 5ms, duty = 20%,                                    | 3.0 A |
| Allowable Power Dissipation                       | P <sub>d</sub> max  | 785   | mW    |
| Operating Temperature                             | T <sub>opr</sub>    | -20 to +75  | °C    |
| Storage Temperature                               | T <sub>stg</sub>    | -40 to +125   | °C    |

**Allowable Operating Range at Ta = 25°C**

|                         |                 |  | unit |
|-------------------------|-----------------|--|------|
| Supply Voltage          | V <sub>CC</sub> | 3.0 to 7.0                               | V    |
| Input 'H'-Level Voltage | V <sub>IH</sub> | I <sub>OUT</sub> = 300mA<br>3.0 to 11.0  | V    |
| Input 'L'-Level Voltage | V <sub>IL</sub> | I <sub>OUT</sub> ≤ 100μA<br>-0.3 to +0.7 | V    |

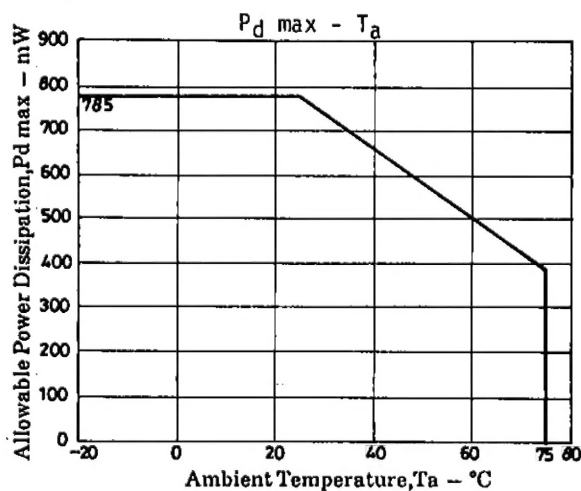
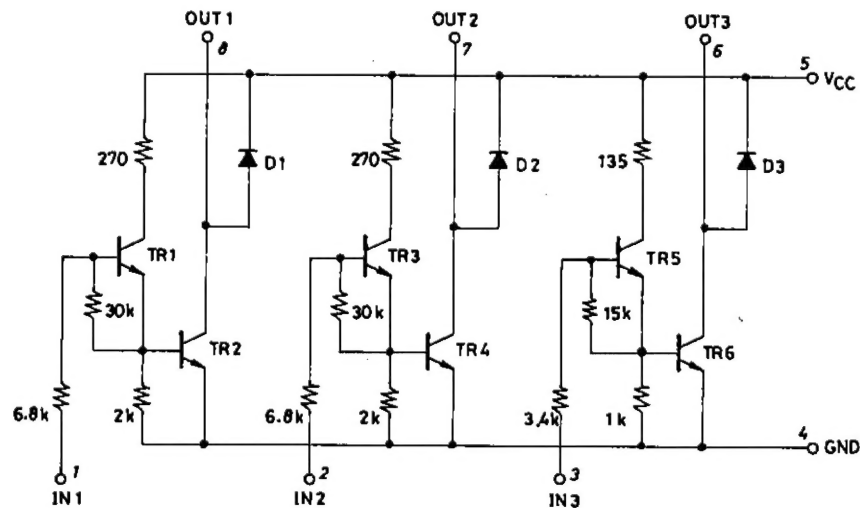
**Package Dimensions 3001B-D81C**  
(unit : mm)

# LB1268

## Electrical Characteristics at $T_a = 25^\circ\text{C}$

|                                       |              |   | min | typ | max  | unit          |
|---------------------------------------|--------------|---|-----|-----|------|---------------|
| Output Voltage                        | $V_{OH1}$    | $V_{IN} = 4.5\text{V}, V_{CC} = 5.0\text{V},$<br>$I_{OUT} = 500\text{mA (ch1,2)}$           |     |     | 0.65 | V             |
|                                       | $V_{OH2}$    | $V_{IN} = 6.0\text{V}, V_{CC} = 7.0\text{V},$<br>$I_{OUT} = 1000\text{mA (ch1,2)}$          |     |     | 1.4  | V             |
|                                       | $V_{OH3}$    | $V_{IN} = 6.0\text{V}, V_{CC} = 7.0\text{V},$<br>$I_{OUT} = 1600\text{mA (ch1,2 parallel)}$ |     |     | 1.4  | V             |
|                                       | $V_{OH4}$    | $V_{IN} = 3.0\text{V}, V_{CC} = 3.0\text{V},$<br>$I_{OUT} = 300\text{mA (ch3)}$             |     |     | 0.25 | V             |
|                                       | $V_{OH5}$    | $V_{IN} = 4.5\text{V}, V_{CC} = 5.0\text{V},$<br>$I_{OUT} = 1000\text{mA (ch3)}$            |     | 0.5 | 0.7  | V             |
|                                       | $V_{OH6}$    | $V_{IN} = 6.0\text{V}, V_{CC} = 7.0\text{V},$<br>$I_{OUT} = 2000\text{mA (ch3)}$            |     | 1.0 | 1.5  | V             |
| Input Current                         | $I_{IN1}$    | $V_{IN} = 6.0\text{V (ch1,2)}$  |     |     | 1.0  | mA            |
|                                       | $I_{IN2}$    | $V_{IN} = 6.0\text{V (ch3)}$  |     |     | 2.0  | mA            |
| Power Source + Output Leakage Current | $I_{OFF}$    | $V_{IN} = 0.5\text{V}, V_{OUT} = V_{CC} = 6.0\text{V}$                                      |     |     | 30   | $\mu\text{A}$ |
| Spark Killer Diode                    | $V_{F1}$     | $I_F = 1000\text{mA (ch1,2)}$   |     |     | 3.0  | V             |
| Forward Voltage                       | $V_{F2}$     | $I_F = 2000\text{mA (ch3)}$   |     |     | 3.0  | V             |
| Output Sustain Voltage                | $V_{O(sus)}$ | $I_{OUT} = 400\text{mA}$  | 10  |     |      | V             |

## Equivalent Circuit



Unit (resistance:  $\Omega$ )

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